FINAL_PROJECT_LAKSHMINARAYANA
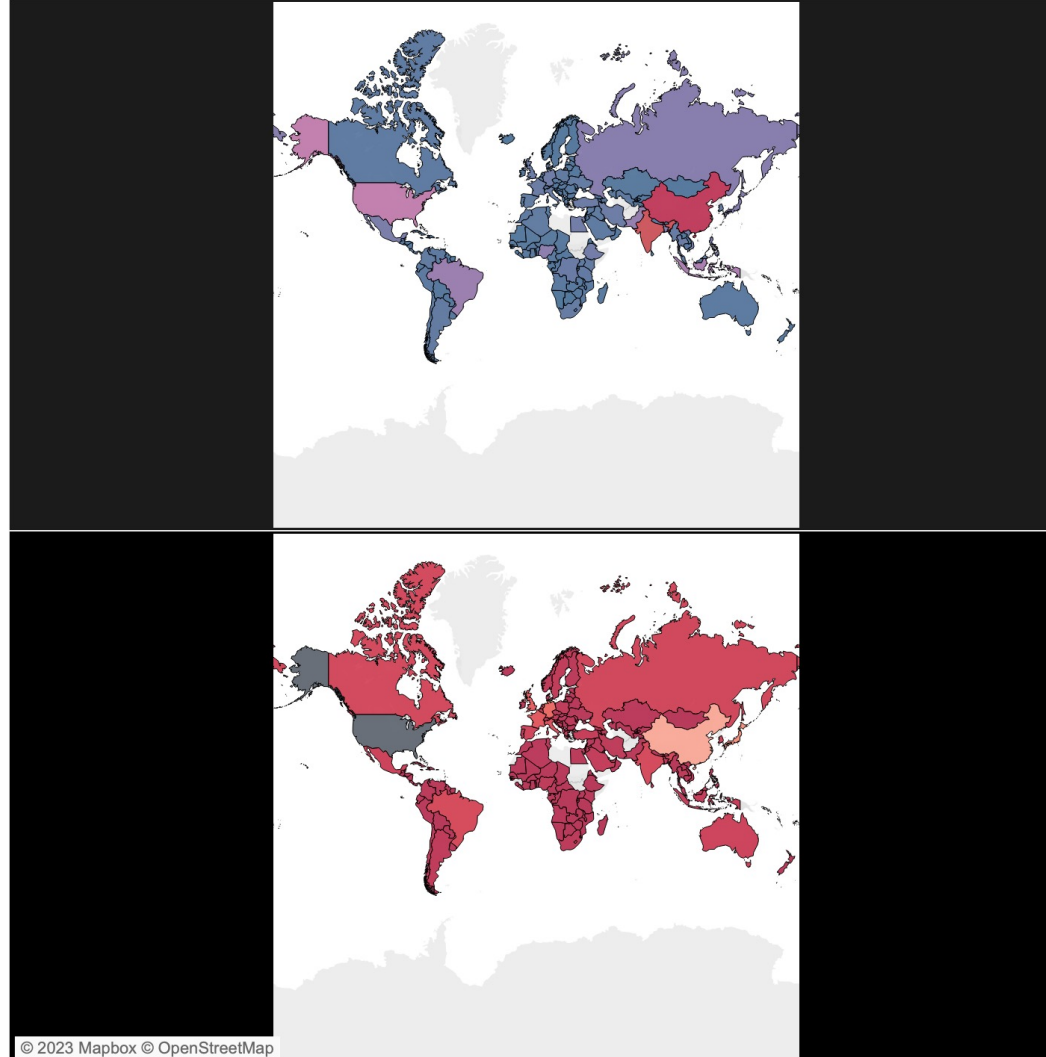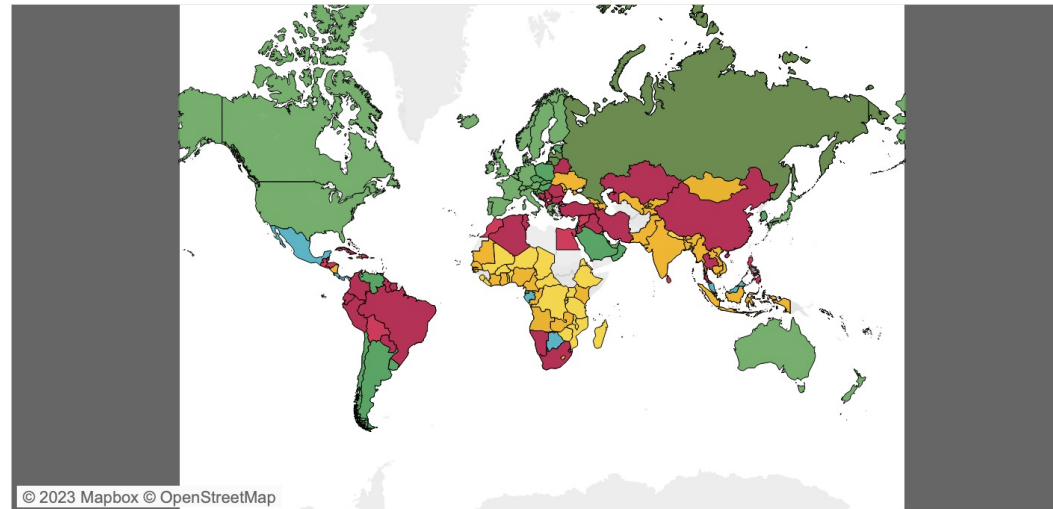
DSCI 5360.009

In 2015, the UN General Assembly adopted 17 global goals known as the Sustainable Development Goals (SDGs) as part of the 2030 Agenda for Sustainable Development. By 2030, the Sustainable Development Goals aim to eradicate poverty, protect and secure the environment. world peace and prosperity for all. The goals are interconnected and address many of the challenges of sustainable development, such as gender equality, clean water and sanitation, cheap and clean energy, climate change and poverty. The Sustainable Development Goals are intended as a global call to action to end poverty, protect the environment and ensure that everyone can live in peace, health and well-being.

Population vs GDP

© 2023 Mapbox © OpenStreetMap

analysis In the context of the SDGs, population and GDP frequently have positive correlations, with higher GDP levels frequently observed in countries with larger populations. This suggests that population growth may facilitate economic development and expansion.
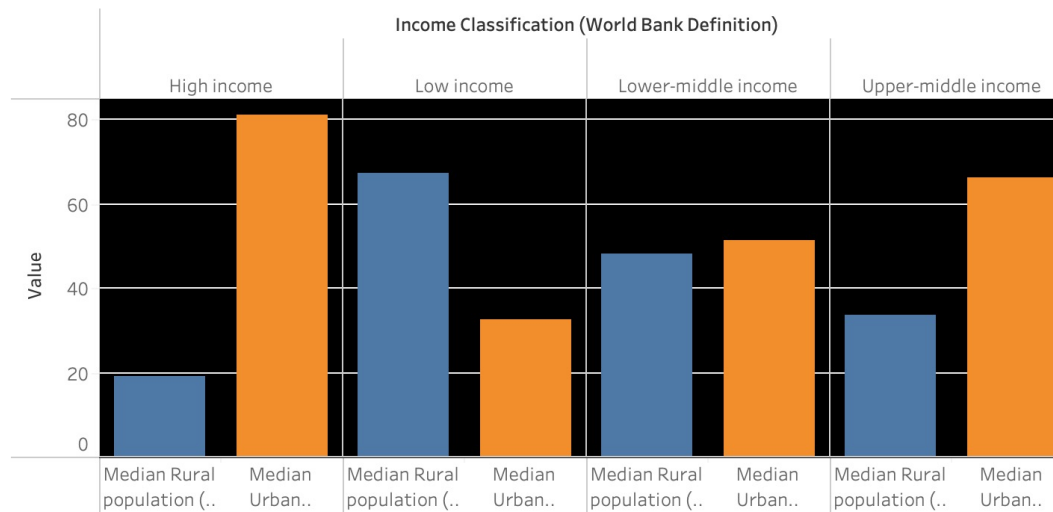
Income classification

Income Classification (World Bank Definition)
- High income
- Low income
- Lower-middle income
- Upper-middle income
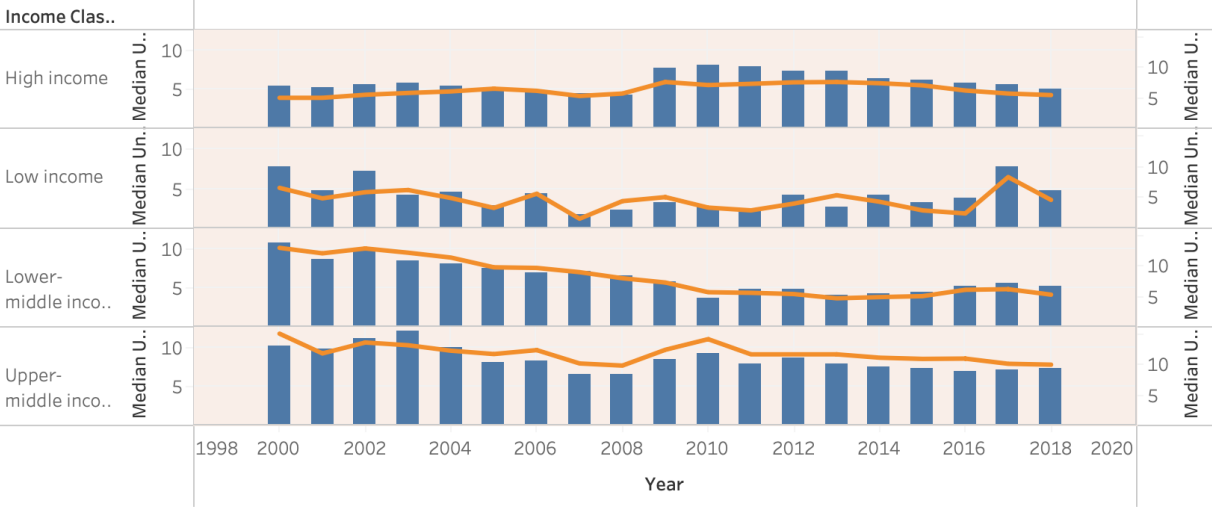

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The countries with different income levels are displayed on the map. As we can see, the sub-Saharan African countries have low incomes, while many of the high-income countries are found in North America and Europe. There are many middle-income countries in the world.

urban vs rural

Income Classification (World Bank Definition)

| High income | Low income | Lower-middle income | Upper-middle income |

Median Rural population (.. | Median Urban.. | Median Rural population (.. | Median Urban.. | Median Rural population (.. | Median Urban.. | Median Rural population (.. | Median Urban..
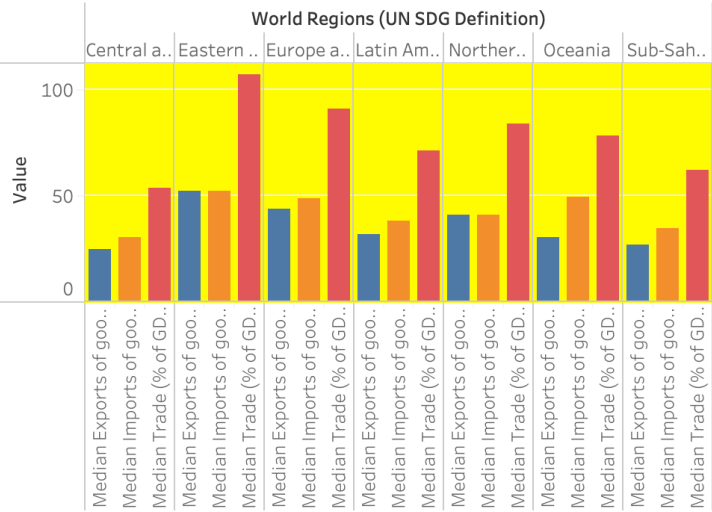
We can see that low-income countries have a large rural population, but high-income countries have a huge urban population when we look at the urban and rural populations around these income-producing countries.
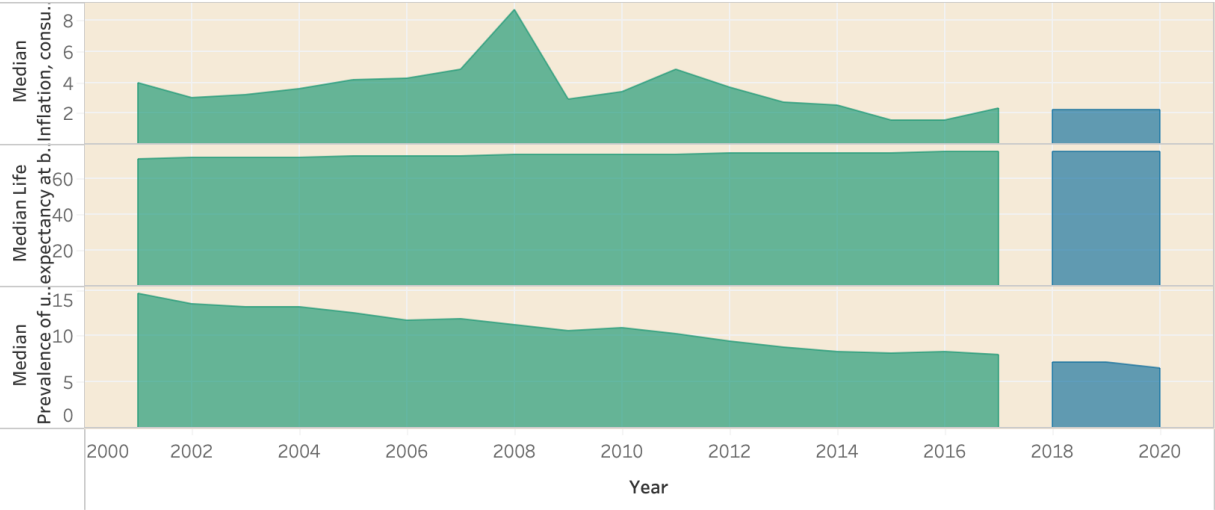
unemployment rates(men vs women)

Although there is still a difference in the unemployment rates of men and women, total unemployment has decreased significantly. Upper middle-income nations have the highest rates of unemployment for both men and women.

Trade

When we examine trade in relation to GDP, imports, and exports across different areas, we see a pattern where southern Asia consistently leads in all trade sectors, followed by Europe and North America.

Inflation, life expectency and malnourishment
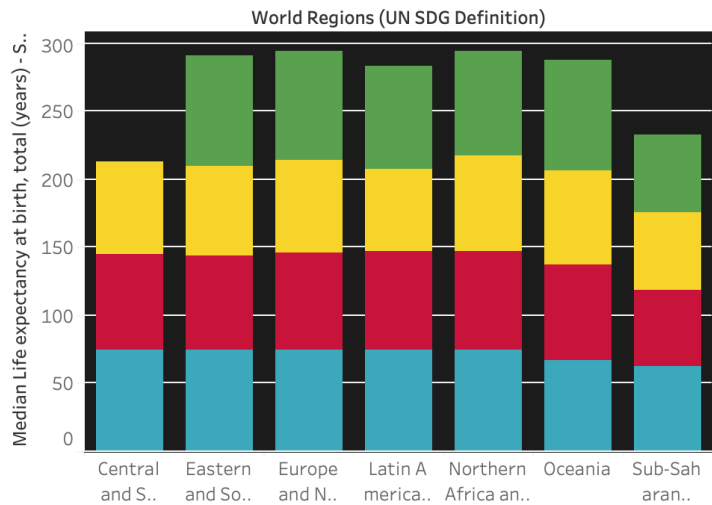
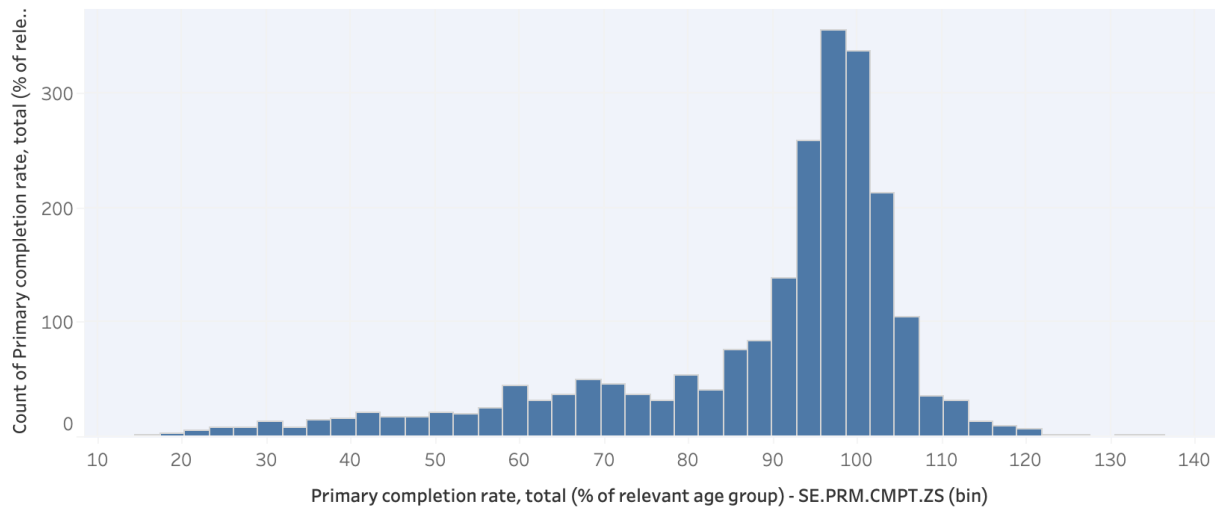**Forecast indicator**
- Actual
- Estimate

Looking at the rate of inflation, life expectancy and prevalence of malnutrition over the past almost two decades, we see that (I) inflation has some inverted v-curves, but the trend seems to be stable over the following years. , (II) life expectancy has increased by 4 years and the trend points to persistence, and (III) the prevalence of malnutrition has halved over the last two decades and is expected to decrease further.

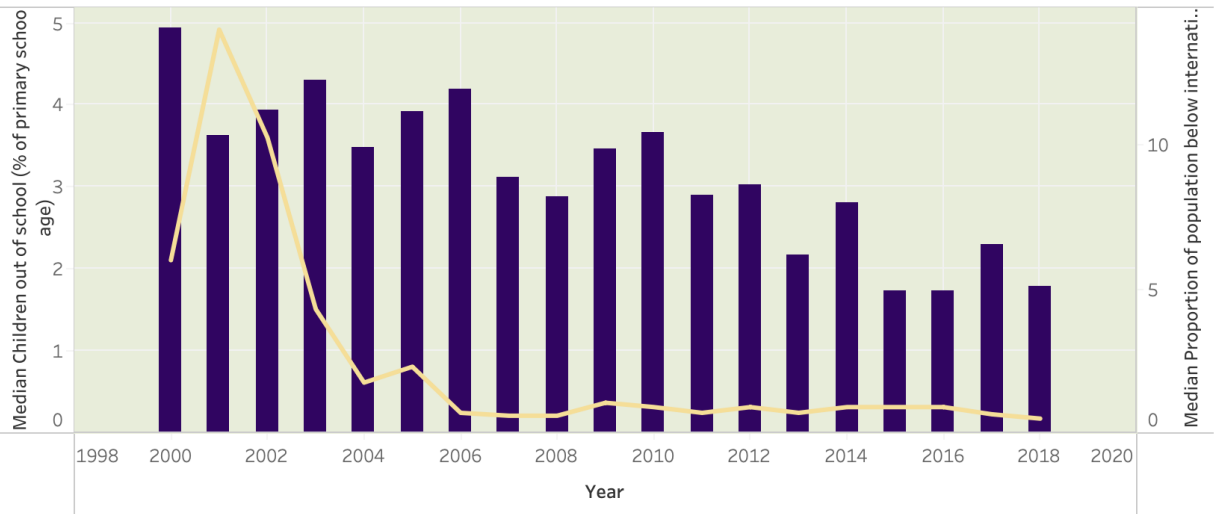## Life Expectancy

World Regions (UN SDG Definition)

In particular, when we look at life expectancy, we find that poor countries have low life expectancy across regions, with the exception of North America and Europe, where life expectancy is sky-high, while sub-Saharan Africa generally has poor life expectancy. . waiting for countries of all economic classes.
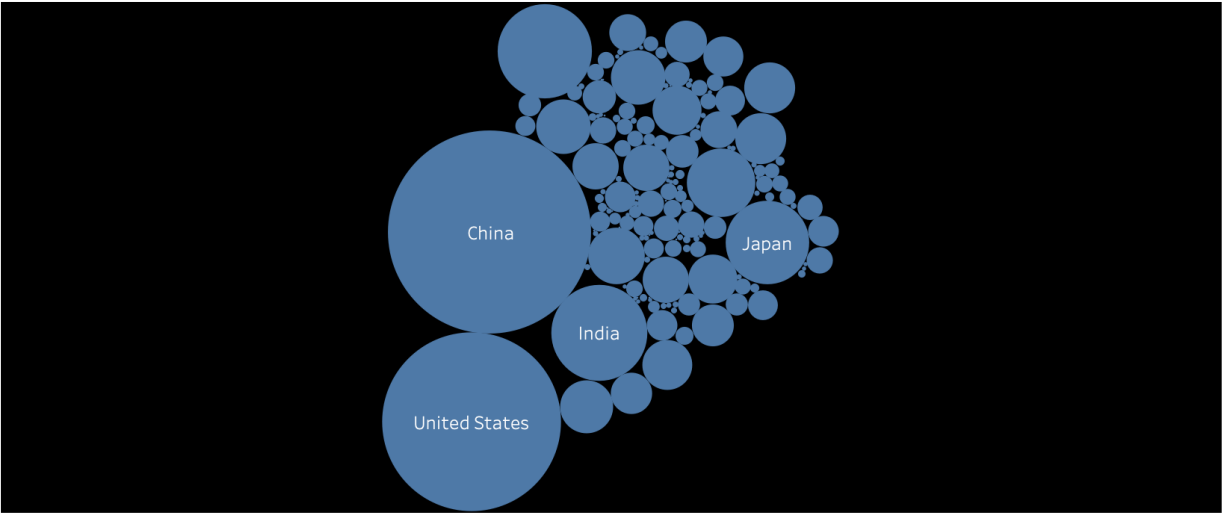
school enrollment(primary vs secondary)

High school participation was lower compared to K-12 dropout, indicating dropout, but now we see that high school participation is higher than K-12 in the last two years, indicating that school enrollment is an important indicator when we look at K. -12 completions a rate that is high and has generally improved over two decades.

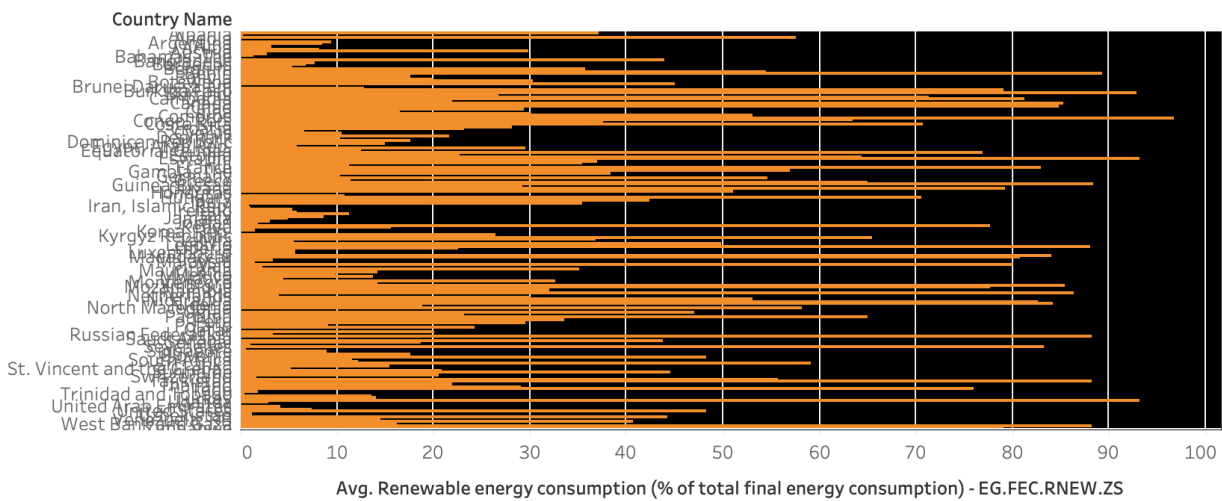## poverty rate vs children out of school

Both the number of out-of-school children and the poverty rate are decreasing significantly, but the decline in the poverty rate is slower than expected, while the number of out-of-school children has decreased according to the predicted trend.

avg co2

renewable energy

Avg. Renewable energy consumption (% of total final energy consumption) - EG.FEC.RNEW.ZS

Renewable energy production and CO2 emissions are often inversely related; As can be seen from the map comparison, lower carbon dioxide emissions produce more renewable energy and vice versa. The development of renewable energy reduces carbon dioxide emissions. This is because fossil fuel-based energy sources such as wind, solar and hydrogen generate significant amounts of carbon dioxide during operation, but renewable energy sources produce little or no greenhouse gases. Therefore, increasing the production and consumption of renewable energy can help reduce carbon dioxide emissions and reduce the impact of climate change.

These results have management implications, suggesting the need for greater investment in climate change technology and renewable energy generation. To anticipate future economic growth, policymakers should focus on reducing poverty rates and ensuring that all people have access to education, especially high school. In addition, differences in life expectancy and malnutrition rates between countries with different economic levels must be addressed more quickly. Overall, these findings emphasize the importance of international cooperation and group efforts to achieve the Sustainable Development Goals by 2030.

Income Classification and Urban and Rural ..

Unemployment rate and Trade

Social Indicators

Educational Indicators

Sustainable Indicators

policy/managerial implications

Summary.

In summary, research shows that sustainable development encompasses interrelated issues that require international action and cooperation to achieve the Sustainable Development Goals (SDGs) by 2030. Within Sustainable Development, there is a positive relationship between population and GDP. , which can promote economic growth. North America and Europe are home to high-income countries, while sub-Saharan Africa is home to low-income countries. High-income countries have a higher percentage of urban dwellers than low-income countries. Prevalence of malnutrition, life expectancy and inflation are increasing, but there are still differences between countries. Since renewable energy production and CO2 emissions are negatively related, increasing the production and consumption of renewable energy can help reduce CO2 emissions.